

## **TROPICAL CYCLONE 02B**

### **I. HIGHLIGHTS**

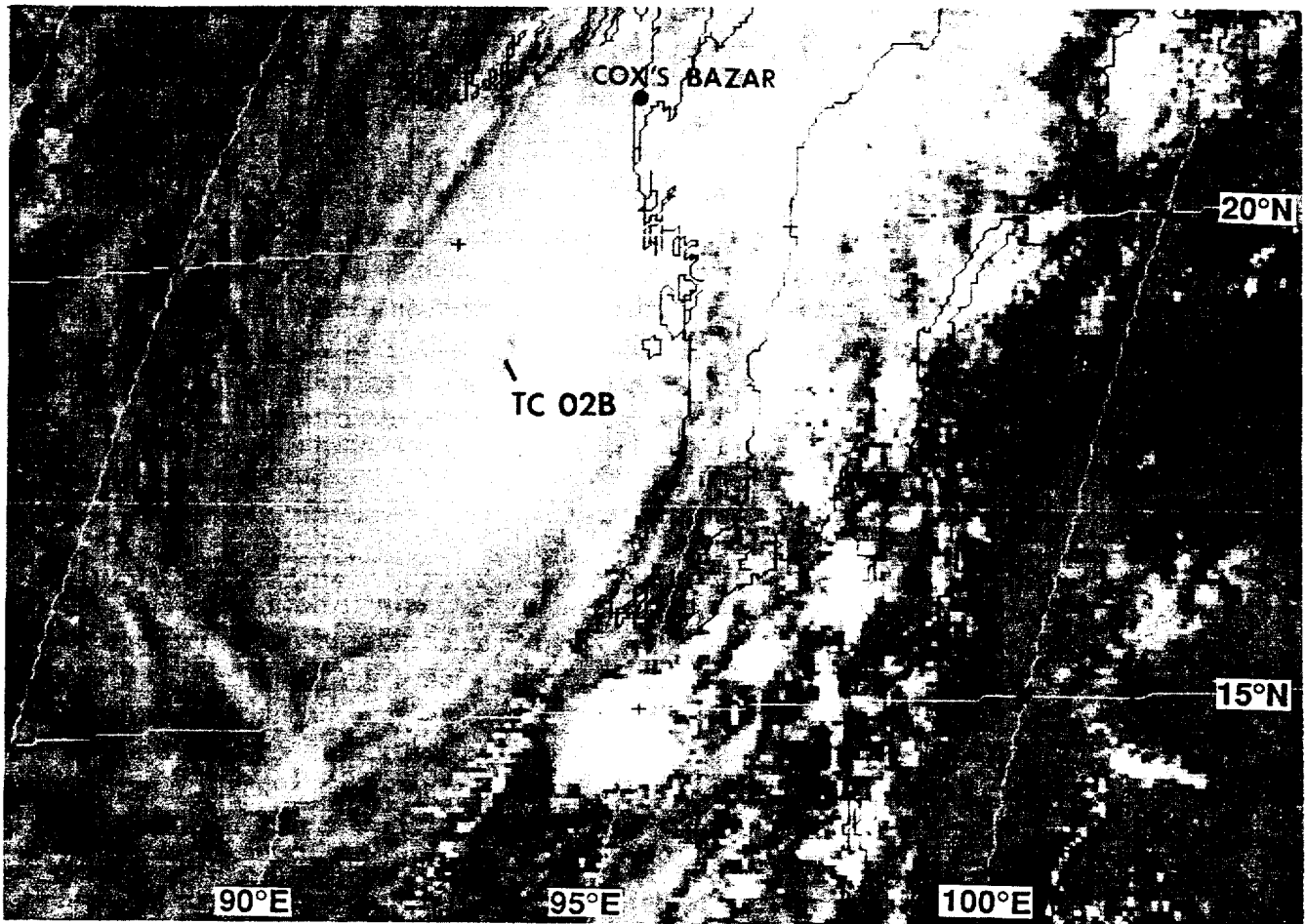
Tropical Cyclone 02B was by far the most intense tropical cyclone in the North Indian Ocean during 1994. Its track and intensity evolution was very similar to that of the devastating TC 02B of 1991, which was responsible for extremely heavy loss of life in the densely populated Chittagong region of Bangladesh. The combination of a lower than expected storm tide, and a massive evacuation effort by disaster preparedness officials in Bangladesh helped to keep this year's casualties to a relative minimum.

### **II. TRACK AND INTENSITY**

The tropical disturbance which became Tropical Cyclone 02B was first mentioned on the 261800Z April Significant Tropical Weather Advisory as an area of persistent convection in the southeastern Bay of Bengal. At 290000Z the first warning was issued based on consolidation of deep convection near the system center. TC 02B tracked generally north-northeastward and intensified at a normal rate (i.e. one "T" number per day). It reached a peak intensity of 125 kt (64 m/sec) — nearly supertyphoon intensity — on 02 May (Figure 3-02B-1). The system weakened slightly prior to making landfall in the vicinity of Cox's Bazar near the Bangladesh-Burma border. The system weakened rapidly over land and the final warning was issued at 030600Z May.

### **III. IMPACT**

In virtually every respect (i.e. track, intensity, location and time of year) TC 02B of 1994 and TC 02B of 1991 were similar. However, the impact of the 1991 storm was far more devastating (138,000 dead in 1991 as opposed to less than 300 dead in 1994). A key difference associated with the impact of the two storms was the astronomical tides: TC 02B (1991) struck close to high tide (12.5 ft (3.8 m) above mean lower low water (MLLW)) and TC 02B (1994) made landfall almost exactly at low tide (3.5 ft (1.0 m) above MLLW). This large astronomical tidal range may have made a substantial difference in the amount of storm surge related flooding. A massive evacuation in which officials moved approximately 350,000 people to safety prior to the landfall of 1994's TC 02B, also played a role in the relatively low number of fatalities. Even so, wire reports indicated relatively heavy losses from TC 02B (1994). In addition to the official death toll of 285, over one half million people were left homeless, with total losses estimated at \$125 million.



**Figure 3-02B-1** Tropical Cyclone 02B moving north-northeastward in the Bay of Bengal. Maximum sustained winds at this time were estimated at 115 kt. (020031Z May visible GMS imagery).